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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/564,388

**Applicant(s)**

SUCH ET AL.

**Examiner**

SHIRLEY JIAN

**Art Unit**

3769

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 6-14, 16, 17 and 19-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-14, 16, 17 and 19-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Acknowledgement***

The Examiner acknowledges the response to office action to application 10/564,388 filed, wherein claims 1-4,6-14,16-17 and 19-23 are pending, claims 1, 2, 6-9 and 11-12 have been amended, claims 5, 15, and 18 have been canceled and claims 21-23 have been added.

### ***Specification***

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: claim 1, line 5 and claim 23, line 6 recite the limitation "on a part of a body of the individual below a shoulder line of the individual"; which is not referenced in the Specification; see below for more information regarding new matter.

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the Applicant's use.

### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.

- (1) Field of the Invention.
- (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

The specification of the disclosure is objected to because the specification lacks proper headings for sub-sections such as background of invention, brief summary of the invention, etc. Corrections are required. See MPEP § 608.01(c).

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1- 11, 21, and 23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Amended claim 1, line 5 and claim 23, line 6 recite the limitation "on a part of a body of the individual below a shoulder line of the individual"; which is not referenced in the Specification. The Specification merely discloses a device arranged to be in contact with an

individual's hand (Applicant on page 7). This does not provide sufficient evidence for the cited limitation.

Claims 2-11 and 21 are rejected as dependent on a rejected claim.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-4, 6-11, 21 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 23 recite the undefined limitation "below a shoulder line of the individual." The Specification fails to provide a clear and distinct definition regarding this phraseology. For instance, many parts of the human body, such as the arms, hands and legs, can be placed either below or above the shoulder line depending on the individual's bodily position. In order to proceed with the prosecution of the application, the Examiner will use the broadest reasonable interpretation in light of the Specification.

Claims 2-4, 6-11 and 21 are rejected as dependent on a rejected claim.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

All claims are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. In particular, claims 1, lines 2-4 recites “contacting first skin surface of an individual...contacting a second skin surface on a part of a body of the individual”; claim 12, lines 11-13 “contacting with a first skin surface... contacting a second skin surface on a part of a body”; and claim 23, line 3-5 recites “first contact surface contacting a first skin surface... a second contract surface contacting a second skin surface on a part of the body...” These limitations recite a positive relationship to the human body. However, the human body is non-statutory subject matter and cannot be positively recited. Therefore, the Applicant should amend the claims to include functional language such as: “configured to” or “arranged to.” For example, the following is considered statutory: "arranged to contact a first skin surface of an individual."

In addition, claims 1-11 and 21 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 1 positively recites limitations that overlap statutory classes. In this case, the applicant has positively recited an apparatus and a method in the same claim. See MPEP 2173.05(p) II. More specifically, claim 1, line 4 recites “contacting a second skin surface...” The verb “contacting” is an action step within an apparatus claim.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-4, 9-14, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,327,495 B1 to Iwabuchi et al. (herein after as Iwabuchi) in view of US Patent No. 6,546,232 B1 to Sack et al. (hereinafter Sack).**

Regarding claim 1, Iwabuchi teach a portable electronic device (see Fig. 1, intelligent terminal unit/health management device: portable telephone set “T”), comprising:

a first contact surface contacting a first skin surface of an individual during usage of the device (see Fig. 1: front contact surface with electrodes A, B, C and D; Iwabuchi teach a device with multiple contact surfaces capable of being brought into contact with a user's skin, col.3, ll.60-62 and col.5, ll.32-42);

a second contact surface (Fig.1, side contact surface with electrode E and F) contacting a second skin surface on a part of a body of the individual below a shoulder line of the individual, (col.5, ll.15-42, electrodes A,B,C and D are in contact with the hands, while electrode E and F contacts the soles of the feet) *wherein* the first contact surface comprises a first electrode and the second contact surface comprises a second electrode, said first electrode being electrically isolated from said second electrode (see Fig.1, electrodes A, B, C and D are on the front surface of the device, see col.5, ll.15-20; while electrodes E and F are on a different surface, see col.5, ll.33-35, the electrodes are electrically isolated from one another); and

a measuring component (control unit or alternatively, Fig.2: control section 21) for measuring an electrical differential signal generated by cardiac activity from said first electrode and said second electrode during the usage of said device, said electrical differential signal being

representative of a physiological condition of said individual (col.2, ll.51-56, a voltage detecting unit detects voltage from the electrodes, and a control unit calculates a health management indicator based on the input and detected data, in this case, the health parameter is BMI, blood pressure and pulse rate; also see col.9, ll.32-42).

Iwabuchi fails to teach that the measured *electrical differential signal is an ECG spectrum generated by cardiac activity*. However Sack, a prior reference in portable physiological monitoring teaches a mobile telephone comprising four electrodes enabled to detect EKG signals (Sack: col.3, ll.11-30). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Iwabuchi's electrode placement and physiological parameter measuring configuration in view of Sack's EKG measuring configuration because an objection of the invention is to provide health management systems to various physiological concerns including cardiac problems (col.2, ll.6-9).

2. (Currently amended) The device according to claim 1, wherein said device further comprises a sensor signal interpretation unit (Fig. 2: control unit) arranged to perform an analysis of said electrical differential signal in order to derive a health-related parameter related to the cardiac activity (col.2, ll.51-57, control unit calculates health management indicator based on input and detected data).

3. (Previously presented) The device according to claim 2, wherein said device further comprises a user interface (Fig. 1: LCD display unit 3, col. 5, ll. 1-3) connectable to said sensor signal interpretation unit, said user interface being arranged to present said health-related



parameter to the individual (col.2, ll.54-57, display unit displays calculated results to the user).

4. (Previously presented) The device according to claim 3, wherein said device further comprises a transmission component (Fig. 3: data communication between mobile terminal units "T" and "U" to aggregation center "S") arranged to forward said health-related parameter to a remotely arranged unit (col.2, ll.59-63, 2 way data communication is performed between the mobile terminal unit and a remote aggregation unit).

9.(Currently amended) The device according to claim [[5]]4, wherein said device is a telephone handset, the first contact surface comprising a housing area of the telephone handset, said area being arranged in a direct vicinity of an earpiece, the second contact surface comprising a grip portion of the telephone handset (Fig. 1: a portable telephone comprising a housing area on main body 1 within the vicinity of microphone 5, and multiple side surfaces as grip portion of the portable telephone).

10. (Previously presented) The device according to claim 9, wherein said telephone handset is a mobile telephone handset, the first contact surface comprising a keypad, the second contact surface comprising a grip portion of the mobile telephone handset (Fig. 1: a portable telephone comprising a numeral input 2 composed of ten-key pad, and multiple side surfaces as grip portion of the portable telephone).

11. (Currently amended) The device according to claim [[5]]4, wherein said device comprises an earphone and a body unit, the first contact surface being arranged on the earphone, the second contact surface being arranged on the body unit (Fig. 1: a portable telephone comprising a microphone 6 and a main body 1).

Regarding claim 12, Iwabuchi teach a health management system (health management system) arranged to monitor a physiological condition of an individual (col.2, ll.6-9; health management system measures blood pressure and pulse rate and BMI), said system comprising:

a portable electronic device (see Fig. 1, intelligent terminal unit/health management device: portable telephone set "T") arranged to detect and measure an electrical differential signal generated by cardiac activity representative of said condition (col.5, ll.15-42; portable telephone set "T" provides conductive electrodes to measure BMI);

a sensor signal interpretation unit (Fig. 2: control unit) arranged to analyze said electrical differential signal in order to derive a health-related parameter related to the cardiac activity (col.2, ll.51-57, control unit calculates health management indicator based on input and detected data);

a transmission component (Fig. 3: data communication between mobile terminal units "T" and "U" to an aggregation center "S") arranged to be actuated by said sensor signal interpretation unit, said transmission means being arranged to forward said parameter to a remotely arranged medical care provider (Fig.3, aggregation center "S"), said provider being arranged to process said parameter in order to derive a health condition of said individual (col.2, ll.54-57, display unit displays calculated results to the user); wherein

said device comprising a first contact surface contacting a first skin surface of an individual during usage of the device and a second contact surface contacting a second skin surface of a hand on a part of a body of the individual (see Fig. 1, Iwabuchi teach a device with multiple contact surfaces capable of being brought into contact with a user's hands and soles of the feet, see col.3, ll.60-62 and col.5, ll.15-42), wherein the first contact surface comprises a first electrode and the second contact surface comprises a second electrode, said first electrode being electrically isolated from said second electrode (see Fig.1, electrodes A, B, C and D are on the front surface of the device, see col.5, ll.15-20; while electrodes E and F are on a different surface, see col.5, ll.33-35); the device further comprising a measuring component (control unit or alternatively, Fig.2: control section 21) for measuring an the electrical differential signal from said first electrode and said second electrode during the usage of said device (col.2, ll.51-56, a voltage detecting unit detects voltage from the electrodes, and a control unit calculates a health management indicator based on the input and detected data, in this case, the health parameter is BMI, blood pressure and pulse rate, see col.9, ll.32-42).

Iwabuchi fails to teach that the device was capable of detecting and measuring an *electrical differential signal in an ECG spectrum generated by cardiac activity*. However Sack, a prior reference in portable physiological monitoring teaches a mobile telephone comprising four electrodes enabled to detect EKG signals (Sack: col.3, ll.11-30). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Iwabuchi's electrode placement and physiological parameter measuring configuration in view of Sack's EKG measuring configuration because an object of Iwabuchi's invention is to provide health management systems for cardiac problems (col.2, ll.6-9) and Sack provides a more

comprehensive means to obtain cardiac measurements.

13. (Previously presented) The health management system according to claim 12, wherein the transmission component (Fig. 3: data communication between mobile terminal units T and U to aggregation center S) is arranged for transmitting said parameter by means of a wireless signal to a base unit arranged to enable a connection to the medical care provider (aggregation center "S") by means of a communication network (col.2, ll.59-63, 2 way data communication is performed between the mobile terminal unit and the aggregation unit, a mobile unit uses wireless telephone network).

14. (Previously presented) The health management system according to claim 12, wherein the device further comprises a user interface arranged to be actuated by the sensor signal interpretation unit, said user interface being arranged to present said parameter to the individual (col.6, ll.24- col.7, ll.9; user selects change-over switch 9 to activate BMI measurement on portable telephone set "T", then set "T" queries the user to input personal information and detects body fat, then calculates and displays body fat rate and BMI when the user selects display change-over switch 10).

19. (Previously presented) The health management system according to claim 12, wherein said device is a telephone handset, the first contact surface comprising a housing area of the telephone handset, said area being arranged in a direct vicinity of an earpiece, the second contact surface comprising a grip portion of the telephone handset (Fig. 1: a portable telephone comprising a

housing area on main body 1 within the vicinity of microphone 5, and multiple side surfaces as grip portion of the portable telephone).

20. (Previously presented) The health management system according to claim 19, wherein said telephone handset is a mobile telephone handset, the first contact surface comprising a keypad, the second contact surface comprising a grip portion of the mobile telephone handset (Fig. 1: a portable telephone comprising a numeral input 2 composed of ten-key pad, and multiple side surfaces as grip portion of the portable telephone).

**Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,327,495 B1 to Iwabuchi in view of US Patent No. 6,546,232 B1 to Sack, and further in view of Kuusela et al. (hereinafter Kuusela) as applied to claims 1 and 12 above.**

Regarding claims 21 and 22, modified Iwabuchi teach the portable device and health management system for detecting physiological parameters stated in claims 1 and 12 respectively, but fails to teach said device and system further comprising *a differential amplifier wherein the electrical differential signal is input to prior to being input to the sensor signal interpretation*. However Kuusela, a prior reference in portable health management, teach a mobile device for detecting ECG signals comprising a differential amplifier (Kuusela, Fig.3: differential amplifiers 34-36). It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify Iwabuchi's mobile physiological device to include the

differential amplifiers taught by Kuusela because differential amplifiers produces reliable common reference potentials (Kuusela, col.4, ll.34-37).

**Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,396,416 B1 Kuusela in view of U.S. Patent No. 7,433,718 B2 to Manabe et al. (herein after as Manabe).**

Regarding claim 23, Kuusela teach a method, comprising:

measuring with a measuring component an electrical differential signal in an ECG spectrum generated by cardiac activity of an individual during usage of a portable electronic device (col.6, ll.3-7, equipment 20 measures ECG signals), said signal being representative of a physiological condition of said individual (col.6, ll.3-7, ECG, EEG, EMG, blood pressure and respiratory flow indicative of an individual's physiological condition);

amplifying the signal with a differential amplifier (col.4, ll.29-39, differential amplifiers 34-36);

filtering the signal with a filter (col.4, ll.39-43, low pass filter 37);

digitizing the signal with an analog to digital converter (col.3, ll.53-65, A/D converter 216); and

analyzing the signal with a sensor signal interpretation unit in order to derive a health-related parameter related to the cardiac activity (col.4, ll.44-56, software analysis ECG signal for cardiac disturbances). Kuusela also teach using an attachable/removable sensor unit for attaching electrodes to the user's skin to detect ECG readings (col.4, ll.22-32), but is silent regarding the placement of the electrodes.

However Manabe, a prior reference in portable health management teaches skin surface electrodes for detecting biological parameters, such as EMG (Manabe, col.1, ll. 60-66). Furthermore, Manabe teach said electrical differential signal being measured from a first contact surface (Fig. 2: mobile device has a first contact surface with electrode 24) contacting a first skin surface of the individual and a second contact surface (Fig. 2: mobile device has a second contact surface with electrode 24) contacting a second skin surface on a part of the body of the individual below a shoulder line of the individual (Manabe, col. 4, ll. 48-55: “When a user holds the mobile phone 20 to make a phone call, the mobile phone 20 maintains contact with [the] skin on a hand and the face of a user”; hand is sufficient to reject the limitation “a part of the body of the individual below a shoulder line”), the first contact surface comprising a first electrode and the second contact surface comprising a second electrode, said first electrode being electrically isolated from said second electrode during usage of said device (Manabe, see Fig. 2, electrodes 22 and 24 are isolated from one another). It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute Kuusela’s electrode placement configuration in view of Manabe’s electrode placement configuration because Manabe’s configuration for electrode placement allows a user to take biological measurements during the conventional usage of a mobile device by simply and easily contacting the electrodes to the hand and ears of a user (col.3, ll.19-23 and ll.45-49).

**Claims 6-8 and 16-17 are rejected under 35 U.S.C. 103(a) as being obvious over U.S. Patent No. 6,327,495 B1 to Iwabuchi et al. in view of US Patent No. 6,546,232 B1 to Sack as applied to claims 1 and 12 above.**

Regarding claim 6-7 and 16-17, Iwabuchi and Sack do not teach a device for measuring an electrical signal generated by cardiac activity wherein the device is an electric shaver comprising multiple shaving heads with a first electrode and a grip portion with a second electrode. However, Iwabuchi teach a mobile terminal capable of measuring a biological signal wherein "other intelligent terminal units such as a portable personal computer with model or an electronic organizer with communicative systems may be employed as well" (col.9, ll.57-59). At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to substitute a mobile telephone unit with an electric shaver embodiment because Applicant has not disclosed that a portable health management device wherein the device is an electric shaver provides an advantage. In fact, the specification lists an electric shaver as a suitable device that brings electrodes into a contact with the individual's skin (Applicant at [0010]). One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the mobile phone embodiment taught by Iwabuchi and Sack because the mobile phone unit is a suitable unit where a user is able to contact both surfaces respectively with the skin on the hand and cheek of the user to complete the electric circuitry to measure an electric signal representative of cardiac activity.

Regarding claims 8 and 18, Iwabuchi and Sack do not teach a device for measuring an electrical signal generated by cardiac activity wherein the device is an electric toothbrush a first contact surface comprising a brush head and a second contact surface comprising a grip portion of the toothbrush. However, Iwabuchi teach a mobile terminal capable of measuring a biological signal wherein "other intelligent terminal units such as a portable personal computer with model or an electronic organizer with communicative systems may be employed as well" (col.9, ll.57-



59). At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to substitute a mobile telephone unit with an electric toothbrush embodiment because Applicant has not disclosed that that a portable health management device wherein the device is an electric toothbrush provides an advantage, is used for a particular purpose, or solves a stated problem. In fact, the specification lists an electric toothbrush as a suitable device that brings electrodes into a contact with the individual's skin (Applicant at [0010]). One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the mobile phone embodiment taught by Iwabuchi and Sack because the mobile phone unit is a suitable unit where a user is able to contact both surfaces respectively with the skin on the hand and cheek of the user to complete the electric circuitry to measure an electric signal representative of cardiac activity.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Shen, US Patent No. 7,031,745 B2 and Platt et al., US Patent No. 6,485,416 B1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHIRLEY JIAN whose telephone number is (571)270-7374. The examiner can normally be reached on M-F 9:30am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hank Johnson can be reached on 571-272-4768. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SHIRLEY JIAN/  
Examiner, Art Unit 3769

/Michael C. Astorino/  
Primary Examiner, Art Unit 3769

June 18, 2009